

Abstract

Geographical distribution of esophageal cancer and its risk factors in Ardabil province

Introduction: Esophageal cancer is the 8th prevalent cancer (4% of all) around the world and sixth leading cause of death due to cancers. Ardabil province is one of the most prevalent areas of esophageal cancers in Iran.

Objective: In this research the geographical distribution of esophageal cancer in Ardabil province and the effect of esophageal cancer risk factors are such as smoking and distance from volcanic mountain Sabalan are studies.

Materials and Methods: This descriptive analytical and cross-sectional research studies 661 patients diagnosed with esophageal cancer from March 2002 to May 2011 in Ardabil province. The data of the patients such as residency, tumor pathology and etc and derived from the documents of Aras clinic of Ardabil Imam Khomeini hospital. This data are processed and analyzed by SPSS-10 and GIS softwares. The geographic maps of Ardabil province and obtained, which shows the distribution of the patients in terms of sex, job, risk factors (smoking), pathological and anatomical type of tumor and distance from Sabalan volcanic mountain.

Result: Six hundred and sixty one pathologically confirmed esophageal cancer from 2002 through 2011 were included. In this study, Squamous cell carcinoma was the dominant tumor histology and it was more common in males. In this study, it is observed that in most of the patients, the cancer tumor come into existence in the middle of the esophagus. In addition the majority of the patients are rurals and about 40% of the patients have smoking habits as the esophageal cancer risk factors.

Conclusion: The results of this study showed that by distancing from volcanic mountain Sabalan, the number of patients having esophageal cancer decreases averagely. This research confirms that the volcanic mountains can be considered as one of the environmental factors causing cancer diseases.

Key words: Esophageal cancer, geographical distribution, risk factor